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FROM THE PRESIDENT'S DESK

All officers and members of the American Schools of Oriental Research have been deeply saddened by the tragic death near Baghdad on March 5 of our Honorary Baghdad School Fellow, the Rev. Roger T. O'Callaghan, S. J., of Fordham University, as reported in the February BULLETIN and in the public press. We herewith express our profound sympathy to his mother, Mrs. Ellen O'Callaghan of Parkchester, New York, in her bereavement, and to the officers and the colleagues of Fordham University in their loss. His death was a great blow to scholarship and to us all personally. According to reports from a member of the Oriental Institute staff in Baghdad at the time, the accident occurred

during a stormy night and involved the head-on collision between the car in which Father O'Callaghan was riding as one of five passengers, and a broken-down truck left standing in the road without lights. The fact that Father O'Callaghan and Professor Maxwell Power of Kenyon College were both riding on the right side of the vehicle conspired to make them the chief victims of the catastrophe. Two cars with additional members of the party, following the lead car, escaped the crash and were able to give slight assistance to those involved in the tragedy. Brief tributes to Father O'Callaghan will be found elsewhere in this issue. I report proudly that Mrs. Kraeling, in the course of a brief three-day stay at Baghdad, visited the grave of Father O'Callaghan on March 18, and without suggestion on my part placed upon it a wreath in the name of the American Schools of Oriental Research. This simple, spontaneous act is expressive of the esteem and affection in which we all held Father O'Callaghan. The example will be followed by those of us whose travels may in future years bring us to Baghdad. *Sit semper in memoria.*

The joint enterprise of the Baghdad School and of the Oriental Institute at Nippur in lower Iraq has meanwhile been brought to a successful conclusion and the members of the staff are returning to the United States. The area of the North Temple and of the suburb of which it proved to be the heart and center has been laid bare, giving a new understanding of the urban development of Nippur. In the area of the Inanna Temple clearances have proceeded through the Achaemenian levels and the way has thus been paved for an attack upon the great structure in another season. Due to inclement weather, conditions were particularly unfavorable for communications between the site, the base of operations at Afek, and Baghdad, making the work and management of the expedition very difficult.

At Jerusalem work continues at the School and in the Museum under the active direction of Drs. Muilenburg and Cross. Dr. Muilenburg and several of the Fellows and students participated for shorter and longer periods of time in the work at Jericho through the kindness of Miss Kathleen Kenyon, Director of the expedition. Since that time there have been many field trips around the countryside, which this year is unusually beautiful because of the heavy winter rains. In the work on the scroll fragments from the caves good progress is being made and the first of the volumes presenting the new materials in the Museum is currently in its page-proof stage and will appear under the imprint of the Clarendon Press, probably before the end of the year.

Arrangements for the arrival at Jerusalem of the staff for the academic year 1954-55 have now been made. Rev. Dr. Patrick W. Skehan of the Catholic University of America, our next Annual Professor, is to arrive in Jerusalem about July 1 and will be in charge during the month of August, by which time both Prof. Muilenburg and Prof. Cross will have left. Prof. William Morton will arrive about September 1 to take over the reins as Director. Dr. Bruce Howe, Annual Professor of the Baghdad School, will return to northern Iraq in September to resume cave and prehistoric town-site excavations. Your President expects to be able to pay a brief visit to the Jerusalem School in June. To those members

of the staff of both Schools who have handled the work in the field so effectively during the present academic year he would express on behalf of the organization our sincere appreciation of their efforts and achievements.

CARL H. KRAELING

IN MEMORIAM ROGER T. O'CALLAGHAN, S. J.

News of the sudden death of Rev. Roger T. O'Callaghan, S. J., reached the United States on March 6. Father O'Callaghan's career was short but he had already given signs of a remarkable future in scholarship. He was born in New York City on Oct. 13, 1912, and after graduation from Regis High School he entered the Society of Jesus at St. Andrew-on-Hudson, Poughkeepsie, N. Y. Having finished his classical training, he continued his studies at the Jesuit Seminary in Toronto from 1933 to 1936, and at the Università Gregoriana in Rome from 1936 to 1940, where he was ordained in 1939.

Having returned to the United States at the outbreak of the War, Fr. O'Callaghan taught philosophy at Fordham University during the academic year 1941-1942. In the fall of 1942, he enrolled in the Oriental Seminary of Johns Hopkins University, from which he received his doctorate in 1946. After a year of study at the University of Chicago and a short period in the Near East, he was appointed professor at the Pontificio Istituto Biblico in Rome, where he lectured on biblical history, geography, and archaeology, and gave courses in Ugaritic, Accadian, and Comparative Semitics until 1952.

From the very start of his professional career he began contributing to journals, and in 1948 he published his invaluable *Aram Naharaim*, a doctoral dissertation completed under the direction of Prof. Albright. From March, 1950, until the following October he was engaged in archaeological work in the Near East, mainly with Bossert and Dunand at Karatepe and Byblos.

Having returned to the United States in 1952, he was attached to Fordham University as research professor; during this time he also worked at Yale with Prof. Goetze. He left the United States for Iraq in July, 1953, on a Fulbright scholarship. It was while returning to Baghdad March 5th from a trip to the Moslem holy city of Najaf that he met sudden death in an auto accident. He was buried the following day in the cemetery of the Jesuit Fathers at Baghdad College.

Early in his career, Fr. O'Callaghan showed brilliant talent as a practical linguist. His ability to acquire a speaking knowledge of languages in an extraordinarily short time is legendary. The writer has heard him converse with the greatest ease in practically all the Western European tongues; after a few weeks' stay in Ireland he learned much more than the elements of the difficult Irish language. He also acquired ease in spoken Hebrew and Arabic. This ability, coupled with an effervescent charm, won him a host of friends in America, Europe, and the Near East. He was known personally to a wide circle of scholars here and abroad, and his friends ranged from ambassadors to day laborers in the streets of Rome.

Fr. O'Callaghan's interest in the field of Near Eastern scholarship was intense, and he permitted no obstacle to stand in his way. Whether he needed a book or a jeep he rarely failed to obtain it. How much he might have done we can only conjecture, but the list of his publications is already quite long. He was working at a second edition of his book, and the writer knew of his plan to produce a history of Israel of the scope of Kittel's work. Fr. O'Callaghan will long be remembered by his friends and students as a charming companion and a great inspiration to work.

GEORGE S. GLANZMAN, S. J.

. . . I hear today from [Mgr. John] Barton that O'Callaghan was killed in a car accident last week. This is most distressing news. . . . Father O'Callaghan was so fine a scholar and so charming a man. I had come to know and to love him and had hoped great things from him. We asked him to read a paper to our Society [for Old Testament Study] in Edinburgh, as we had hoped he would be with us. . . . I know you will feel this loss very much, as he was one of your students on whom you pinned the highest hopes. . . .

H. H. ROWLEY
(letter of the 17th March)

The world of oriental scholarship has suffered a great loss in the untimely death of Father O'Callaghan. The members of the staff of the Oriental Institute have particular reason to mourn his passing because the time he spent with them in recent years gave them an opportunity to discover that his personal charm was as remarkable as his scholarly ability. My own contact with him enabled me to appreciate his broad and exact knowledge of two of the several fields in which he was interested—Aramaic studies and Palestinian archaeology. I am also convinced, from watching him converse with colleagues of different faiths, that he will be missed by Protestant and Jewish scholars as keenly as by Catholics: *Zēker ṣaddiq liḇᵉrakâh*!

RALPH MARCUS

In the all too brief period in which Father O'Callaghan was active as a scholar, his achievement was outstanding for its scope, breadth of view, and freshness of approach. There was in it, above all, immense promise of things to come. Those who had the privilege of knowing Father O'Callaghan personally had an added reason for the utmost confidence in his future as a scholar. For he had that true humility towards his subject without which absolutely first-rate work is most unusual, if not altogether impossible. His tragic death is thus an incalculable loss in every way.

E. A. SPEISER

Together with Father O'Callaghan's other innumerable friends, I am grateful for these and many other spontaneous tributes to a man whom we all loved and admired and whose loss seems so irreparable. I can never forget a day in early September, 1942, when a tall and handsome young Jesuit came to my office and said that he wished to study "the historical background of Scripture." As usual, I gave him an immediate informal quiz, and was delighted to find that he possessed a fluent command of French, German, Italian, and Spanish, as well as the classical languages. Before the end of the year he was speaking Hebrew and Arabic, and had acquired a fair reading knowledge of several other Semitic tongues. We can only hope that his example will stimulate still younger men to carry out the splendid plans for research and organization of scholarship which Father O'Callaghan seemed so uniquely able to conceive and execute.

W. F. ALBRIGHT

INSCRIBED JAVELIN-HEADS FROM THE PERIOD OF THE JUDGES: A RECENT DISCOVERY IN PALESTINE

J. T. Milik and Frank M. Cross, Jr.[1]

The first inscribed javelin-head was bought from an antiquity dealer on November 1, 1953. Some weeks afterwards more javelin-heads appeared on the market. It was ascertained that they belonged to the same lot, and the provenience was located beyond any reasonable doubt. The three pieces which bear inscriptions came into the hands of Abbé Milik (No. I), Dr. Cross (II), Mr. Harding (III; Amman Museum No. J5137). The first two also acquired most of the uninscribed pieces. The whole hoard contained about 26 javelin and arrowheads, and was found by a *fellâḥ* of el-Khaḍr, a village 5 km. west of Bethlehem. As there is no evidence for the occupation of the site earlier than the Roman period, the cache may have been lost or buried with its owner, during or after a battle. Strategically el-Khaḍr is well situated, dominating an important north-south road as well as an "infiltration" path climbing up from the coastal plain.

Typologically, the hoard is relatively homogeneous.[1a] All the pieces are of bronze, with variations in the alloy. Most of them represent approximately the same type (with variations noted in brackets): blade about 2 mm. thick in section (sometimes thickened towards the point); leaf-shaped, oblong, a few lanceolate, one rhomboidal; central flat rib of about 5 mm.; a bulge at the base of the blade, varying in thickness (often square in section); a square tang enlarging towards the bulge at the base of the blade and joining it, sometimes gradually, sometimes abruptly. The measurements vary considerably: length between 10.5 cm. (No. I) and 6.2; breadth from 2.0 cm. to 1.1; maximum proportion 4:1 (8.0 cm. × 2.0); tang between 3.0 and 1.5 cm. in length; maximum proportion of the length of blade to that of tang 3:1 (*ca.* 9 cm. × 3 cm.). Exceptional types are (1) quite flat blade, without bulging at the base; square tang: 8.0 × 1.4 cm.; (2) central flat rib, blade thickened towards the point, very slight bulging, round tang: twin examples of 8.0 × 4.7 cm.; (3) like the main type, but with a short square tang (in two of the three examples, 1 cm. long), deeply cut into the base of the blade. On the whole, the essential features, especially of the longer pieces, are characteristic of Late Bronze: thin and relatively broad leaf-shaped blade, without a heightened rib, with only a slight bulge at the juncture of the blade and the tang.[2] On the other hand, thickened blade-

[1] Abbé Milik has written the first section of the paper; Dr. Cross the palaeographical section. The writers would like to acknowledge their debt to Mr. G. Lankester Harding for lending them for study and publication the javelin-head which he has acquired, and to Yusif Sa'ad and the Palestine Archaeological Museum for cleaning the hoard and preparing photographs of the inscribed pieces.

[1a] More detailed typological study of these arrowheads will appear in the *Annual of the Department of Antiquities of Jordan.*

[2] Cf. T. el-Mutesellim: *Megiddo III*, Pl. 174:14 (Str. VIII = LB I); PL. 176:51, 57 (VII = LB II); Beisân: Rowe, *The Four Canaanite Temples of Beth-Shan,*

points, thick square blade-bases, and short tangs, deeply cut into the base of the blade, begin to anticipate the forms of iron arrowheads which came into common use after 1000 B. C. Consequently, the el-Khadr hoard seems to belong to the 12th or 11th century.[3] Père Vincent, Mr. Harding and Père de Vaux, who have seen the hoard, would date it to the Early Iron Age, also, and even more precisely to the 12th century.

Inscribed bronze tools and weapons are known from before and after this period; e. g., the adze of Ras Shamrah, the knife of Tabor, the Lachish Dagger, the 11th-10th century B. C. Ruweiseh Arrowhead and two others (unpublished) of about the same date,[4] a 6th cent. faience arrowhead with a Phoenician inscription found at Memphis,[5] a 5th cent. bronze *paragnathides* and an arrowhead from Idalion.[6]

All three of the el-Khadr javelin-heads bear the same inscription: *ḥṣ 'bdlb't*, with the omission of *aleph* on No. II. The name of the weapon is specified just as on the Ruweiseh Arrowhead. The first word can be vocalized *ḥiṣṣ* (*ḥiẓẓ*), with *i* according to Hebrew, but against Acc. *uṣṣu* and Ethiopic *ḥaṣ*. In Ugaritic, Arabic, and Aramaic the word is written with the letter corresponding to original *ẓ*, which may by the twelfth century have been merely historical. However, it may still have been pronounced differently from original *ṣ*. Perhaps it is through the contact of the Greeks with the Canaanites in the south rather than in the north that one should explain Greek *Turos* < *Ṣur* (together with *Gaza* < *Gazzat* and *Bublos* < *Gubl*),[7] which quite early became *Ṣur* in the Phoenician city-dialects closer to Ugarit. An argument against the merging of *ẓ* with *ṣ* can perhaps be drawn from the letter-form on the el-Khadr javelin-heads: a "lighter" one for *ẓ*, differentiated from the "heavier" one of the Phoenician *ṣ*-sign, just as in the South-Arabic alphabet.

The name *'bdlb't* occurs in an Ugaritic census-list of bowmen (*UH* 321:III, 38) together with *'ky* (previous line), patronymic of the owner of the Ruweiseh Arrowhead, whose first name, *'d'*, is practically identical with *'Ady* of the same list (I:41; cf. also *Bn-Ady* in 301:I, 3: *ytnm*-list,

Pl. XXXI:2, 10; XXXII:12 (Seti I); Pl. XXXII:6, 14 (Amenophis III); T. 'Ajjûl: *Ancient Gaza II*, Pl. XVI:130, 135, 138 (found together with an LB Cypriote bowl); IV, Pl. XXX: 358, 360 (XVIII Dyn., if Petrie's dating is to be trusted); T. el-Fâr'ah: *Beth Pelet II*, Pl. LIV: the second arrowhead (found together with LB II pottery); T. Beit Mirsim: *AASOR* XVII, Pl. 41:20, and especially 21a (Str. C = LB); perhaps Schumacher, *Tell el-Mutesellim* II, p. 21, Fig. 18 below. See also Schaeffer, *Stratigraphie comparée* . . . , Fig. 130, 1; 131, 1 (Gaza); Fig. 158:10, 19 (Gezer) dated by him to the LB Age. Quite similar forms were found at Yümük Tepe: Garstang, *Prehistoric Mersin*, p. 233, Fig. 149: 18, Pl. XXIXb (Str. IX-X = *ca.* 1800-1500), and p. 251, Fig. 158: 8 (Str. VIII-VII).

[3] See T. el-Mutesellim: *Megiddo Tombs*, Pl. 167: 8-10, esp., 9 (EI I); *Megiddo I*, Pl. 81: 16; *Megiddo III*, Pl. 176: 62, 65 f. (Str. V = 11th cent.); Beisân: Rowe, *loc. cit.*, Pl. XXXI: 1 (Ramses III); T. el-Fûl: *AASOR* IV, Pl. XXXIII: 12 (11th cent.); T. Abu-Hawâm: *QDAP* 4 (1935), p. 26, No. 125, Pl. XXXIII (*ca.* 1000); 'Ain Shems: *Rumeileh*, p. 82, Fig. 6, 33-3-28 (found with pottery of the 10th cent.); T. 'Amr: *Bull. of the Brit. School of Arch. in Jer.*, 2, p. 16 (Iron Age).

[4] *Bull. du Musée de Beyrouth* 6 (1942-43), p. 87.

[5] *ASAE* 47 (1947), pp. 65-71.

[6] E. Babelon et J.-A. Blanchet, *Catalogue des bronzes antiques de la Bibliothèque Nationale*, No. 2026 f. and 2842.

[7] Cf. W. F. Albright: *AJA* 54 (1950), p. 165 f.

and a groom *Bn-Adty* in 400, III, 13).[8] If it is not pure coincidence, this may be an indication that a hereditary and/or mercenary archer class

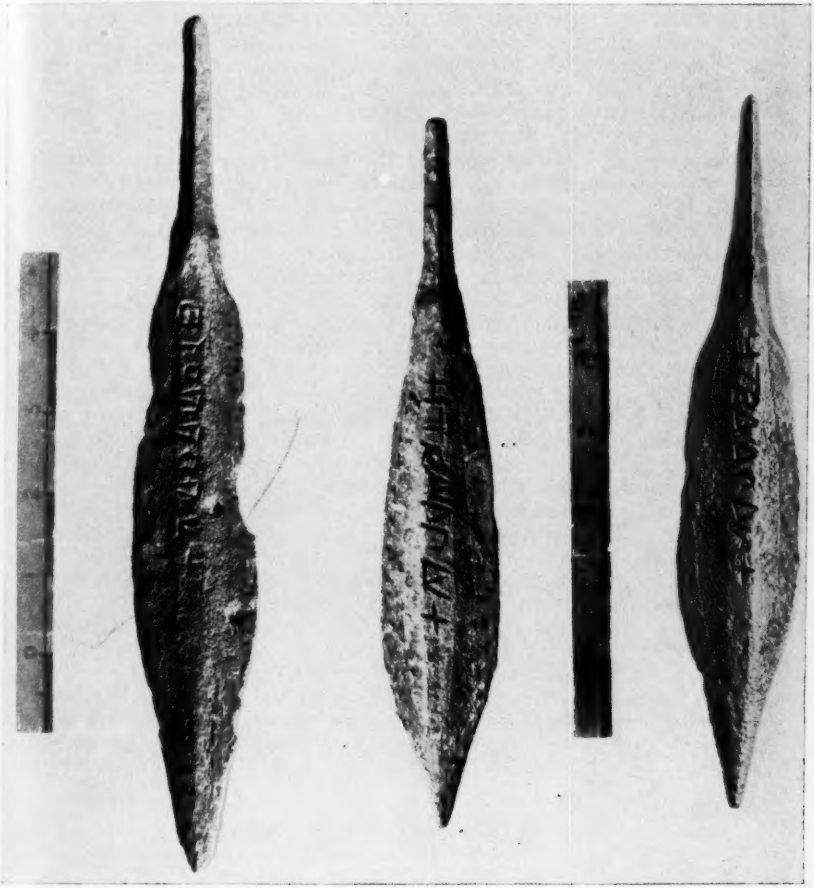


FIG. 1. The Inscribed El-Khaḍr Javelin-heads I, II, III (from left to right). Photographs, Palestine Archaeological Museum.

existed. Cf. the earlier *piṭatu* in the Amarna age, *ṯnn* in Ugarit, *ṣâbê šanannu* in Alalakh[9] or even the *na'arûma* of the Egyptian texts.

[8] As for the Ugar. proper name *Šmlb'i* and Acc. *-laba*, see F. Thureau-Dangin: *RA* 37 (1940-41), p. 105; and Ch.-F. Jean: *Studia Mariana*, Leiden 1950, p. 84 f.

[9] See the note of Albright in *The Alalakh Tablets*, ed., D. J. Wiseman (London, 1953), p. 11, n. 4.

Phonetically, *lb't* hardly can be explained from **lab'at*, in view of the omission of *aleph* on el-Khaḍr II, and of the Ugar. *lb'it*. It is rather **laba't* or **labi't/labît*. The phonetic dropping of ['] in a cluster CV'C is well attested in this period in cuneiform and hieroglyphic transcriptions. The first form, *laba(')t* would give *labôt*, as in *rušunu* and *ṣunu* of *EA*, and in *ruš* of the Egyptian transcriptions, oscillating with *ru'š*,[10] exactly as on the el-Khaḍr Javelins. The phonemic consciousness of ['], paradigmatic analogy, and historical spelling do, of course, preserve *aleph* until much later. The Ugaritic development Ca'C > Ce'C (*r'iš* but in pl., *r'ašm*; *m'it* but *m'at*; *t'ikl*) suggests *labe't* < *laba't*. The same development can explain the phonetic form of two biblical place names: *Lĕbô(')-Ḥămāt* < *Laba'-Ḥamat* in the north, and a Phoenician sanctuary of the lioness-goddess in the south, *Bêt-Lĕbā'ôt*, both traditionally spelled, the latter with a secondary Hebrew pluralization.[11] The normal Hebrew word for lioness is *lābî(')*. Accordingly our form may be *labi't* > *labît* (with *-t* as against later Hebrew *lĕbiyyâ* < *labi'at*). A parallel in Egyptian transcription is *Biruta*, along side of *Bi'(a)ruta*.[12]

As for the lioness-goddess there is an embarrassing choice between the three chief Canaanite goddesses: *'Aṯirat*, *'Aṯtart* and *'Anat*.[13] The first seems preferable, as she, under the epithet *Qudšu*, is represented standing on a lion in the numerous Egyptian stelae dedicated to her, together with Min and Rašpu, by the workers of the Deir el-Medîneh Necropolis.[14] In that case *'Abdlabi't* would be a parallel to *'Abd'atirt/'Abd'at(i)rat* of the Amarna tablets. But Asherah is rather mother and fertility-goddess, and in names of bowmen one might perhaps expect a war divinity. Usually 'Aṯtart and 'Anat are characterized as goddesses of war in the Canaanite and Egyptian texts and representations. For example, they are the patronesses of chariot-warriors; it would be quite as appropriate in the case of archers. The interest of 'Anat in the composite bow is vividly depicted in the 'Aqhat epic. In later times, Astarte is represented as lion-headed, or in the form of a sphinx, and assimilated to Sekhmet.[15] She, or 'Anat, appears on a Ras Shamra cylinder, sitting between two lions.[16] 'Anat, especially popular in the Ramesside period, subsequently was eclipsed by Astarte, who supplies a considerable percentage of Phoenician proper names. Lions were normally associated with Babylonian Ishtar, represented often with a bow and a spear, and

[10] Albright, *Vocalization* . . . , III E, 6; XC, 7, 9.

[11] The same pseudo-plural is probably in *'Aštarôt* (from *'Aštarat*, with *-at*, as against *'Aštar-t*; cf. *EA Aštarti* and Eg. *'Astarat*). The Phoenician pronunciation also is found in *Bêt-'Anôt* (Josh. 15, 59) name of a Judaean (!) town.

[12] Albright, *Vocalization* . . . , IX E, 5; XC, 4, 5.

[13] A convenient summing up of the data concerning these goddesses is to be found in the book of J. B. Pritchard, *Palestinian Figurines* . . . (New Haven, 1943), pp. 59-96; see also *ANET*, p. 249 f.

[14] See J. Leibowitch, *ASAE* 41 (1942), pp. 77-78 (taken over by C. de Wit, *Le rôle et le sens du lion dans l'Égypte ancienne*, Leiden 1951, p. 368, n. 2) and C. Boreau: *Mélanges . . . Dussaud* II, pp. 673-687. The identification was proposed by Albright, *ARI*, p. 75 f., 78; *Mélanges . . . Dussaud* I, pp. 107-120; BULLETIN 110 (April, 1948), p. 17.

[15] C. de Wit, *loc. cit.*

[16] E. Dhorme, *Syria* 16 (1935), p. 195.

called *La-ba-tu Ištar*, etc. Again, in some vocabularies from Nineveh there is mention of a goddess *La-ba-tu*, identified with Ishtar.[17]

The el-Khaḍr Javelin-heads thus preserve an interesting, if modest sample of a South Canaanite dialect from the era when the Judges of Israel flourished. However, their central importance is palaeographic, as they supply us with a missing link between the proto-alphabetic epigraphs and the oldest true Phoenician inscriptions.

The materials for dating the script of the el-Khaḍr Javelin-heads include two groups of epigraphs: the corpus of eleventh and tenth century Phoenician inscriptions, and the little group of Proto-Canaanite inscriptions from the thirteenth and early twelfth centuries, B. C., all from Palestine.[18]

Fortunately, the chronology of the early Phoenician inscriptions has been established on firm ground. The dates of the Abi-Ba'l and Eli-Ba'l Inscriptions are fixed absolutely in the reigns of Shishak and Osorkon I, on whose statues they are inscribed, at the end of the tenth century.[19] The question of the date of the Aḥiram Inscription, concerning which controversy raged for nearly twenty-five years, has now been settled in favor of the palaeographers—on the basis of new archaeological data.[20] We can be off scarcely more than a generation in dating it cir. 1000 B. C. Yeḥimilk, father of Eliba'l, came about midway between Aḥiram and Eliba'l, though his palaeographic connections are mostly with the latter. Shipiṭ-Ba'l, son of Eliba'l, must have flourished at the end of the tenth century (900 B. C.).[21] In short, on palaeographic grounds, controlled

[17] Thureau-Dangin, *loc. cit.* [n. 8].

[18] For bibliographical notices on the Proto-Canaanite inscriptions, see the accompanying article in this issue, "The Evolution of the Proto-Canaanite Alphabet." For the Phoenician inscriptions, see W. F. Albright, "The Phoenician Inscriptions of the Tenth Century B. C. from Byblus," *JAOS* 67 (1947), pp. 153-160; and Cross and Freedman, *Early Hebrew Orthography* (New Haven, 1952), p. 11.

[19] On the chronology of the Twenty-second Dynasty, see most recently, W. F. Albright, "New Light from Egypt on the Chronology and History of Israel and Judah," BULLETIN 130 (1953), pp. 4-11.

[20] Albright had as early as 1942 added archaeological arguments to the palaeographical in pressing for a low date for Aḥiram. See his discussion, "The Phoenician Inscriptions, *etc.*," pp. 153, 4. Dunand, the leading contender for a higher chronology was at last forced to capitulate in 1946: *Byblia Grammata* (Beirut, 1945), "Post-scriptum" (dated April, 1946), pp. 197-200; cf. pp. 139 ff.

[21] Dunand's attempt to date the 'Abda' Sherd and the Shipiṭ-Ba'l inscriptions earlier than Aḥiram was unsuccessful (cf. Albright, *op. cit.*, p. 154). Aside from Shipiṭ-Ba'l's patronymic, the palaeographical evidence is decisive. *Gimel* is in exaggerated, inverted-"V" form, which does not develop before Yeḥimilk. Earlier, *gimel* is open to the left, with a short arm, and a near-vertical right "leg" (Aḥiram), or even with the right leg slanted (from top to bottom) right to left (Beth-shemesh Ostracon, Bronze Spatula). *Mem* is developing an extended final stroke; *nun* has a cursive lengthening of its lowest stroke. Aḥiram, the Aḥiram Graffito, the Spatula, the Ruweiseh Arrowhead all have a short lower stroke; the relative proportions of the upper and lower diagonals of *nun* are quite important for dating. The longer the top stroke, and the shorter the lower, the earlier the form. In the Proto-Canaanite period, the "tail" of the serpent was much longer than the head (which rotated down, of course, to form the lower stroke of *nun*). *Pe* is sharply angled at the top (contrast Aḥiram); *resh* has shifted stance: the "leg" is r.-l. (diagonal from top to bottom) in earliest forms; but slanted l.-r. in later. *Lamedh* has a lengthened top arm; the lower, left bar on *yodh* is high (contrast

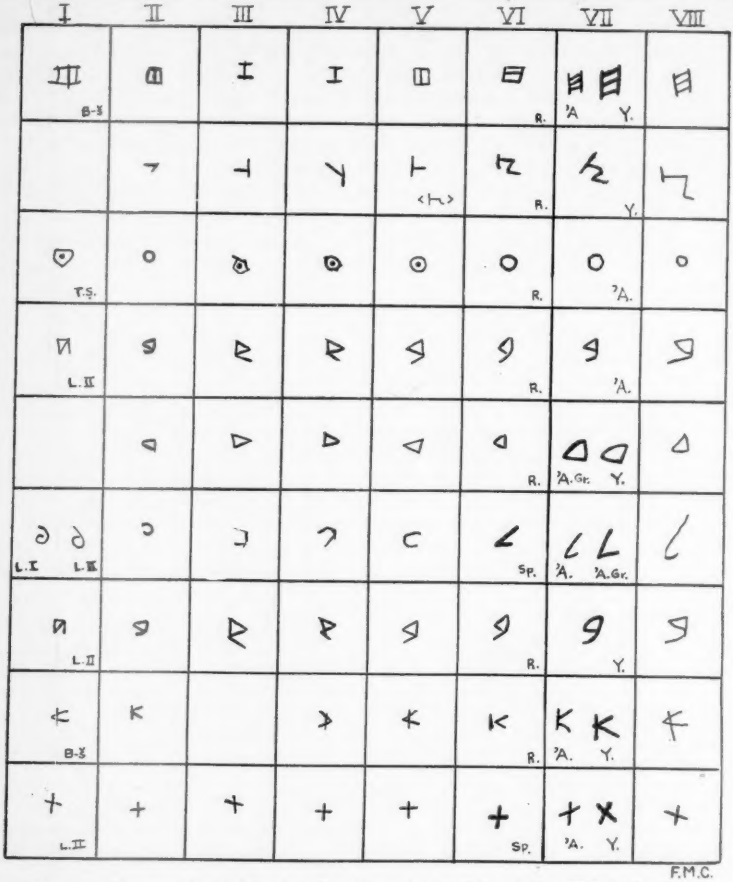


FIG. 2. Comparative table showing the relationship of the El-Khadr Javelin-heads to earlier and later scripts (13th-10th centuries B. C.): Col. I, 13th-12th centuries B. C.; Col. II, El-Khadr I; Col. III, El-Khadr II; Col. IV, El-Khadr III; Col. V, the El-Khadr alphabet in reconstructed, right-to-left stance; Col. VI, 11th-century B. C.; Col. VII, Byblian script of the early 10th century B. C.; Col. VIII, the script of the Gezer Calendar (10th century B. C.). All columns except I, V, and VII have been traced as precisely as possible. Columns I and VII were traced, but reduced to line drawings; Column V is a theoretical reconstruction. Particular care has been given to the El-Khadr forms (Cols. II, III, IV). The tracings were checked and corrected by the Javelin-heads themselves, and by photographs taken at various stages of cleaning. El-Khadr I especially required checking from photographs, since its bad state of preservation obscured some letter forms in the early stages of cleaning (especially *ḥeth*); but certain letters became pitted or blurred in the final stages of cleaning (especially *lamedh* and *taw*). The published photographs represent the Javelin-heads after cleaning was completed. The following abbreviations are found in the chart: Col. I, B-š = Beth-shemesh Ostracon; T. Ṣ = Tell eṣ-Ṣārem Sherd; L. I. = Lachish Ewer; L. II. = Lachish Bowl No. I; Col. VI, R. = Ruweiseh Arrowhead; Sp. = Byblian Bronze Spatula; Col. VII, 'A. = Aḥiram; 'A. Gr. = Aḥiram Graffito; Y. = Yeḥimilk.

by archaeological and historical data, we can arrange the Phoenician inscriptions in the following series: the Ruweiseh Arrowhead,[22] eleventh century B. C.; the Byblian Spatula, late eleventh century; Aḥiram, 1000 B. C., or slightly later; Yeḥimilk, *cir.* 950 B. C.; Abiba'l, reign of Shishak (*cir.* 935-914); Eliba'l, reign of Osorkon I (late tenth century, B. C.); Shipiṭ-Ba'l and the 'Abda' Sherd, *cir.* 900 B. C., or slightly later.

The epigraphs of the thirteenth and early twelfth centuries B. C. which can be used for palaeographic sequence dating are few and fragmentary. Most important are the Lachish Ewer and Bowl. The date of the former can be established fairly accurately. The *terminus ad quem* is the destruction of the last phase of the Fosse Temple, about 1220 B. C. Since it seems to have been used in the temple until close to the time of its destruction, we are probably safe in ascribing it to the third quarter of the thirteenth century. The Bowl is in the same horizon. From the 13th-12th centuries are the Beth-shemesh Ostracon, the Tell eṣ-Ṣārem Sherd, and the Tell el-'Ajjūl Handle.[23] The Tell eṣ-Ṣārem Sherd is dated by archaeological means to the end of LB II; the Beth-shemesh Ostracon is datable by palaeographical means alone.[24] Probably a date for both about 1200 B. C. or slightly later is not far wrong.

The el-Khaḍr javelin-heads provide the missing link between the latest of the Proto-Canaanite epigraphs, and the earliest of the Phoenician inscriptions.[25]

'Ayn. Two of the javelin-heads have "pupils" in their *'ayns*! The pupils are precisely in the center of the letters, neatly and deeply engraved; there is no possibility that they are there by mischance. "Dotted" *'ayns* appear, of course, in the Proto-Sinaitic material; one such form appears in the Beth-shemesh Ostracon;[26] both Tell eṣ-Ṣārem forms are "dotted." None appears in the Phoenician texts of the eleventh or tenth centuries. El-Khaḍr I, written in small, more "advanced" script in some respects (see below), omits the pupil. The occasional omission, dating as early as Proto-Sinaitic, is no criterion for dating; however, the form is a perfect circle, rather smaller than other letters—evidences of development.

Ruweiseh). As Albright has observed, the *beth*, the only abnormal form in the inscription, is cursive in origin and ephemeral (cp. el-Khaḍr). The cursive script of the 'Abda' Sherd, which also exhibits the peculiar *beth*, has a late *he* with strongly slanted cross-bars, and a "fat" *daleth*, the right vertical stroke of which has lengthened—quite like much later lapidary *daleths*.

[22] P.-E. Guigues, "*Pointe de flèche en bronze à inscription phénicienne*," Mélanges de l'Université Saint-Joseph XI (1920), pp. 325-328; S. Ronzevalle, "*Note sur le texte phénicien de la flèche publiée par M. P.-E. Guigues*," *ibid.*, pp. 327-358; Pl. III; R. Dussaud, review in *Syria* VIII (1927), pp. 185-186.

[23] See the writer's article in the present issue, Fig. 4. The Megiddo Ring (Guy and Engberg, *Megiddo Tombs*, Chicago, 1938, pp. 173-176; Fig. 177 [probably upside down]), which dates from the end of LB II, can not yet be utilized. It is engraved in a minute space, with rough strokes, on soft metal. Until scratches (or decoration?) can be sorted out from letter forms, no reading is certain.

[24] Only the reverse, and the top line of the obverse are sufficiently clear to be useful for our purposes.

[25] See the chart appended, Fig. 2. The reconstructed r.-l. forms of Col. V will be described for convenience unless otherwise specified.

[26] Obverse, l. 1, where possibly we should read . . . *'l*, "*'Elî*."

Beth. The *beth* of el-Khaḍr (Kh.) II, III has precisely the form of thirteenth century Lachish, shifted ninety degrees clockwise. It is more archaic than Ruweiseh, which begins to curve the right leg. Moreover, the Ruweiseh *beth* shows less development than its other letters, with the possible exception of *yodh*. The Aḥiram *beth* is completely out of the horizon of Kh. Its standard form prolongs the right leg below the triangular top before curving left at a new angle. The short right leg of Kh., angling hard from the lower, r. corner of the triangle is an excellent gauge of antiquity. The Kh. I forms differ from Kh. II, III in curving the right leg slightly at its junction with the triangle. However, the legs are shorter, and in one case more acutely angled than the latter. Typologically it is thus quite as archaic, though more influenced by cursive styles.

Daleth. We have no early forms in Proto-Canaanite with which to make comparison. The line of evolution can be projected from the Phoenician side, however. Ruweiseh has an equilateral triangle, pointed to the left. The early tenth-century forms are also "fat," but the triangle has rotated slightly, tending to the delta form of the ninth century, with the point to the top. The Kh. form is an isosceles triangle, with the sides forming the acute angle long, giving it a "slender" form. The point is to the left. The short side is near vertical, or even slanted from r. to l. (from top to bottom), the reverse of the delta-form slant. Thus the Kh. *daleth* is the earliest yet known in conventional alphabetic writing.

Lamedh. The Proto-Canaanite forms are tightly coiled with a fairly long arm slanting upwards. The arm, however, tends to become shorter, judging from earlier fifteenth century forms. The El-Khaḍr *lamedh* has "opened" its coil, but is still strongly curved, the Kh. I form in particular. The arm has shortened further, especially in the Kh. I form. The *lamedh* of the Bronze Spatula is remarkably evolved beyond the Kh. forms. It has a sharp angle; the arm is lengthening and rising toward the vertical (which it is not to reach, however, for many centuries!). In the tenth century the arm continues to lengthen until it is high above the other letters. Cursive tendencies begin to operate so that the angle at the base softens into a hook (beginning in Aḥiram; in full development by Gezer). The *lamedh* of Kh. III is an error of the scribe. It may be that it was due to unfamiliarity with the l.-r. stance in a vertical inscription (see below).

Aleph. The Kh. forms of *aleph* solve some puzzles in the evolution of the script. Lachish *aleph* is still close to the pictograph. The vertical cross-bar is still the top of the ox's head (so to speak), rotated ninety degrees; the lower part of the vertical cuts the horizontal "horn" only slightly—perhaps a vestigial ear; the upper part does not cut the horizontal at all. The Beth-shemesh *aleph* has become completely conventionalized. The vertical stroke has moved toward the point of the *aleph*. The Kh. forms show both the Beth-shemesh type (Kh. III) and a more developed type. In the latter, and the Ruweiseh *aleph*, the vertical stroke is virtually through the point of the aleph. This tradition persists in tenth century Byblos. Probably it is a Phoenician scribal tradi-

tion, perhaps cursive in origin (see below); in any case it does not persist. Whether this *aleph* is in the main stream of evolution, the vertical bar later reversing the direction of its movement, or (more likely) is a local, ephemeral development remains to be proved.[27] At all events, by the late tenth century, the lower part of the vertical bar is lengthening and tending to slant, forming the asymmetrical Gezer, and later *alephs*.

Taw. While *taw* cannot always be trusted for dating, we can distinguish two periods: (1) from the thirteenth to eleventh centuries when the form is a symmetrical " cross " and (2) the tenth century, and later forms when the vertical bar (as well as the horizontal which moves more freely) shifts, producing the " X " form. The tendency to shift is first fully felt in Yehimilk. Still later, the vertical bar is extended downward.

Ḥeth and *ṣade*. The chief problems of the Kh. script are in the forms of these two letters. For decipherment the *ḥ* of Kh. I is a godsend. For palaeography it is a headache. The " zayn " forms of *ḥeth* in II and III can scarcely be errors. While we may be fairly sure that they were written by the same scribe—not the scribe of Kh. I—it is methodologically difficult to assume two errors in a script that is so little known. There are two possibilities: (1) the *zayn*-form *ḥeth* is a Palestinian form, conventionalized beyond that of standard Phoenician (preserved in Kh. I). The difficulty here, of course, is the form of *zayn*. It is not impossible, however, that in Palestine, the older *zayn* (parallel horizontal strokes, unconnected by a vertical) survived, in which case there would be no conflict. (2) Abbé Milik suggests that the form represents *ḥ*; the standard form being reserved for *ḫ*. This is possible, since *ḥ* and *ḫ* were probably falling together about this period. The difficulty lies in the fact that Proto-Canaanite preserved a perfectly good form (double loop) for *ḫ*, and that the double loop could not evolve into the *zayn* form. We can posit a theoretical secondary development, whereby Palestine, preserving the two phonemes longer, simplified a borrowed *ḥeth*/*ḫeth* sign to distinguish them. There are good parallels in South Arabic for such a development.[28] Whatever the case may be, we cannot put much reliance on these *ḥeths* in dating the javelin-heads. The standard *ḥeth* of Kh. I, however, is most important for dating. It is very archaic, not yet having rotated to its eleventh century stance, but lies on its side like the Beth-shemesh forms.[29] Moreover, the form is symmetrical, without the cursive influence characteristic of later forms. In the tenth century, *ḥeth* begins to slant, beginning with the horizontal cross-bars.

[27] The Byblian inscriptions exhibit several such forms: *aleph*, *beth*, and the curved *yodh*. These forms do not appear in (later) Aramaic, Hebrew, or Moabite scripts. Either the earlier (11th century forms) persist in local traditions, surviving and finally supplanting the Byblian forms, or we must posit a complex reverse evolution. Since later (ninth-eighth century) Phoenician scripts tend to agree with non-Byblian forms, it is easiest to suppose that the Byblian forms are ephemeral.

[28] Cf. the *ẓ* form, a simplification of *ṣ*. On the other hand, in Hebrew and Old Aramaic, the simplified Phoenician alphabet was " stretched to fit."

[29] Proto-Sinaitic *ḫeth* has the same stance as the eleventh-tenth century form; however, the *ḫeth* goes through two quarter turns in its evolution; only the first has been accomplished by the date of Kh.; a second takes place before Ruweiseh.

The form of *ṣade* is thoroughly strange. Certainly the Kh. I form is in l. to r. stance. All three forms are different, and it is easiest to explain the Kh. I and III *ṣades* as alternates of Kh. II. Two explanations of its evolution are possible: (1) from the two stroke form, a small cursive flourish developed,[30] later becoming angled, and part of the form. As we try to show elsewhere, *ẓ* and *ṣ/ḍ* (which fell together early in Canaanite) fell together in Phoenician, and the *ẓ* symbol became the standard *ṣade*.[31] In no case can the Kh. *ṣade* have evolved from the Proto-Canaanite "blossom" (*ṣ/ḍ*) which survived only in South Arabic. Unfortunately, no *ẓ* symbol has yet been certainly identified in Proto-Canaanite. It is not impossible that it survives in Thamudic, where a sign, identical with ours, after a ninety degree shift, is used for *ẓ*.[32] (2) The form represented *ẓ*, a simplification of the complex *ṣ* symbol of standard Phoenician (Milik). Again, the difficulty is that we must suppose that the original symbols of Proto-Canaanite were lost, a simplified Phoenician alphabet adopted, and modified.

Whatever the solution of the problem, we are dealing with three forms of *ṣade*—which cannot be scribal errors—all more archaic than any hitherto identified symbol for *ẓ/ṣ*.

A comparison of the scripts on the javelin-heads is most instructive. A number of detailed points have been touched on above. We have noticed that Kh. II and III exhibit identical hands. Their script is marked by rectilinear forms, the archaic *'ayn*, the "Palestinian" *aleph*. The scribe, or engraver of Kh. I is a more skilled artisan. He has no difficulty with curved lines. On the whole his forms seem more influenced by cursive traditions, and hence on first look seem more advanced. Of course, cursive forms generally lead the script in its evolution. On the other hand, some of his letters retain less evolved forms than Kh. II, III, notably *lamedh*. It is hard to escape the conclusion that his *aleph* shows traces of a local Phoenician fad; this circumstance combined with his "standard" *ḥeth*, his extraordinary skill, and practised curved forms suggest that he was a Phoenician, or was trained in metropolitan centers where Phoenician scribal traditions dominated. The scribe of Kh. II, III, on the other hand, may preserve Palestinian traditions. Perhaps all this is premature speculation; however, it is difficult to explain the differences between I and II, III on the basis of individual, scribal idiosyncrasies.

A primary criterion for dating the el-Khaḍr Javelin-heads is the direction of writing, and the left-to-right direction of individual letters. In the fifteenth century and earlier, vertical writing dominated Proto-Canaanite styles; it survives after the fifteenth century only in this inscription; though from the evolution of the script, especially the rota-

[30] See chart, Col. V (brackets). Parallels to such flourishes have been mentioned—both ephemeral (*beth*) and permanent (*yodh*). Cf. the writer, "The Evolution, *etc.*"

[31] As *ṯ* became *shin*; *ḏ*, *zayn*.

[32] Specialists in Thamudic (Winnett, Van den Branden) derive the symbol from *zayn* (for which it is intermittantly used). This seems more plausible on the basis of the Thamudic evidence alone. Of course, a highly conventional sign is difficult to trace, and may turn up to represent similar sounds without any connection in origin.

tion of letter stances, we know that it still flourished after the thirteenth century. The practice certainly died out by the middle of the eleventh century, to judge both from the rigidity of subsequent letter stances,[33] and from the fact that no examples survive in later inscriptions. The l.-r. stance of all the letters in Kh. II, III gives eloquent testimony to the fact that left-to-right vogues were still remembered. The *lapsus calami* of the scribe in Kh. III in writing *lamedh* upside down may testify to his unfamiliarity with l.-r. forms; on the other hand, the scribe of Kh. I, while writing most letters in r.-l. stance mixes in two l.-r. forms, showing that while there was uncertainty about the treatment of stance in vertical writing (in a single-column text), the l.-r. forms were by no means unfamiliar. The latest inscription certainly written from left to right is the Lachish Ewer of the late thirteenth century. Moreover, the evolution of the script indicates that right-to-left writing became thoroughly dominant during the thirteenth-twelfth centuries.

On the basis of the evidence above, it is clear that palaeographic data require a date for the el-Khadr Javelin-heads not earlier than the twelfth century and not later than the early eleventh century B. C. Perhaps a date *cir.* 1100 is best. Thus our javelin-heads from Palestine are the earliest example of the "conventionalized" alphabetic script. At the same time, they establish beyond cavil that the "Phoenician" alphabet evolved from a Proto-Canaanite precursor.

THE EVOLUTION OF THE PROTO-CANAANITE ALPHABET

FRANK M. CROSS, JR.

In the past decade, several great advances have been made in the study of alphabetic origins. The first of these was the establishment of the chronology and the palaeographic relationships of the Byblian inscriptions of the tenth century B. C.[1] More important was the redating of the Proto-Sinaitic inscriptions to the early fifteenth century B. C., and the advance toward their definitive decipherment made by W. F. Albright in 1948.[2] Most recently, the discovery of archaic inscribed javelin-heads from Palestine makes possible a further stride in closing the remaining gaps in the history of the early evolution of the script.

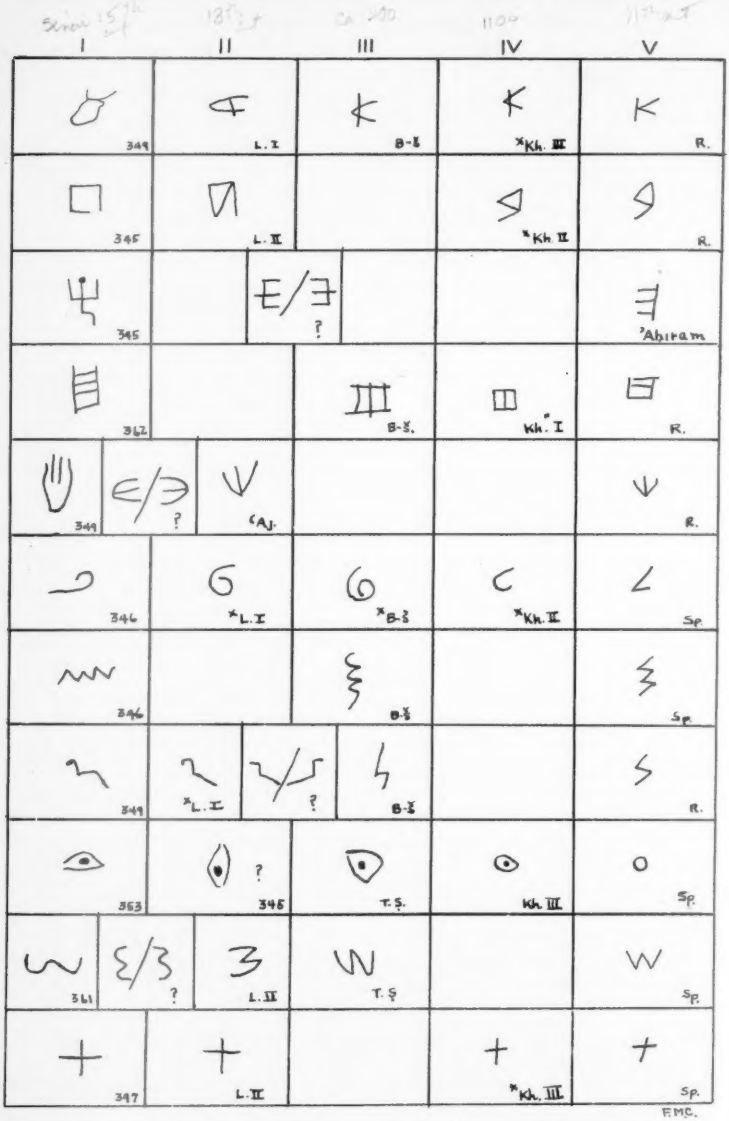
We need not rehearse here the story of the debate. Actually, in terms of the theory of alphabetic origins, little progress was made between Alan Gardiner's epoch-making paper published in 1917,[3] propounding the theory that the Proto-Canaanite alphabet was acrophonically devised

[33] That is, no further ninety-degree shifts take place.

[1] See M. Dunand, *Byblia Grammata* (Beirut, 1945), "Post-scriptum," pp. 197-200; and W. F. Albright, "The Phoenician Inscriptions of the Tenth Century B. C. from Byblus," *JAOS* 67 (1947), pp. 153-160.

[2] "The Early Alphabetic Inscriptions from Sinai and Their Decipherment," BULLETIN 110 (1948), pp. 6-22.

[3] "The Egyptian Origin of the Semitic Alphabet," *JEA* III (1916), pp. 1-16.


I
II
III
IV
V
349
L. I
B-Š
*Kh. III
R.
345
L. II
*Kh II
R.
345
?
'Abiram
342
B-Š.
Kh. I
R.
349
?
'AJ.
R.
346
*L. I
*B-Š
*Kh. II
Sp.
346
B-Š
Sp.
349
*L. I
?
B-Š
R.
363
?
345
T. Ṣ.
Kh. III
Sp.
341
?
L. II
T. Ṣ
Sp.
347
L. II
*Kh. III
Sp.
EMC.

under the inspiration of Egyptian writing, and the current decade.[4] On the other hand, materials in early Phoenician, and in Proto-Canaanite from Palestine have been accumulating. Montet's discovery of the Aḥiram sarcophagus in 1923, and Dussaud's decipherment and publication of it, the Abiba'l, and Eliba'l epigraphs (1924-25); the discovery of the Ruweiseh Arrowhead, and its publication by Ronzevalle in 1926; Dunand's series of extraordinary epigraphic discoveries at Byblus in the thirties, especially the Bronze Spatula Inscription published in 1938, provided sufficient material for palaeographical and linguistic analysis, placing early Phoenician epigraphy on a sound scientific footing.[5] Concurrently, Proto-Canaanite epigraphs were being found in Palestine; many of these are too early, too fragmentary, or too poorly preserved to be of use for the present in describing the evolution of the script. Two inscriptions from Lachish,[6] the Beth-shemesh Ostracon,[7] and a sherd from Tell eṣ-Ṣâremˌ[8] the first two from the late thirteenth century, the

[4] Brief resumés of the discussion and extensive bibliographical notices can be found in Diringer, *The Alphabet* (New York, 1948), pp. 195-222; I. J. Gelb, *A Study of Writing* (London, 1952), esp. pp. 261-263; Cross and Freedman, *Early Hebrew Orthography* (New Haven, 1952), pp. 8 f.

[5] For bibliography, see the items listed in n. 1, and *Early Hebrew Orthography*, p. 11.

[6] Definitive publication of the Ewer (Lachish I) is found in *Lachish II, The Fosse Temple*, pp. 49-54 (where a summary of previous attempts at decipherment are found); and Pls. LI A:286; LI B:287; LX, 3; and Frontispiece. The Lachish Bowl No. 1 (Lachish II) was first published by Starkey, "Excavations at Tell el-Duweir, 1934-1935," *PEFQS* 1935, Pl. XVI. The best of the older treatments are Yeivin, "The Palestino-Sinaitic Inscriptions," *PEFQS* 1937, pp. 180-193; Albright, "The Early Evolution of the Hebrew Alphabet," BULLETIN 63 (1936), pp. 8-12; and Maisler, "*Zur Urgeschichte des phönizisch-hebräischen Alphabets*," *JPOS* 18 (1938), pp. 278-291.

[7] E. Grant, "*Découverte épigraphique à Beth Šemeš*," *RB* 39 (1930), pp. 228-29; Grimme, "*Die altkanaanäische Buchstabenschrift*," *AfO* 10 (1935-1936), pp. 267-281; Yeivin, *op. cit.*, pp. 187 ff.; Maisler, *op. cit.*, pp. 290 f.

[8] Ruth B. Kallner, "Two Inscribed Sherds" (in Hebrew), *Qedem* II (1945), pp. 11-14; Pl. II, 1; and E. L. Sukenik, "Note on the Sherd from Tell eṣ-Ṣârem" (in Hebrew), *ibid.*, p. 15.

FIG. 1. Development of the Proto-Canaanite alphabet, 15th-11th centuries, B. C.: Col. I, 15th century (Proto-Sinaitic); Col. II, 13th century; Col. III, *cir.* 1200 B. C.; Col. IV, *cir.* 1100 B. C.; Col. V, 11th century B. C. The following symbols are used: Col. I (II), numbers in boxes refer to Proto-Sinaitic text from which the letter was traced; Col. II, L. I. = Lachish Ewer; L. II. = Lachish Bowl No. I; 'Aj. = Tell el-'Ajjûl Jar handle (Fig. 4); Col. III, B-š. = Beth-shemesh Ostracon; T. Ṣ. = Tell eṣ-Ṣârem Sherd; Col. IV, Kh. = el-Khaḍr Javelin-heads; Col. V, R. = Ruweiseh Arrowhead; Sp. = Byblian Bronze Spatula. One letter (*he*) is traced from the Aḥiram Inscription (beginning of the tenth century B. C.). All forms are given in right-to-left stance; when a form was taken from an inscription written from left to right, it was traced in reverse to give the standard r.-l. stance. In such case, the reference symbol bears the asterisk. Boxes which break the columns (Cols. I-II, II-III) record periods which r.-l. and l.-r. stances of signs were confused and reversed. They are theoretically reconstructed, and hence bear the question mark. The transitional *he* (Col. II-III) is based partly on the South Arabic form. The rotated *kaph* (Col. I-II) may never have become a standard form. The transitional forms of *n* and *ṯ* (Col. II-III and I-II, respectively) are almost certainly correct, both in date and form, thanks to more abundant data.

latter two from *cir.* 1200 B. C. or slightly later, can be utilized, however, and offer a bridge between the el-Khaḍr Javelin-heads (cir. 1100 B. C.), and the Proto-Sinaitic inscriptions.[9]

We wish here (1) to discuss the general lines upon which the evolution of the script moved, (2) to apply these principles to the longest and best preserved Late Bronze inscription (the Lachish Ewer), and (3) to discuss some implications of our suggestions.

In a fashion similar to, and probably suggested by Egyptian procedures, Proto-Canaanite was written vertically or horizontally, and left to right or right to left. To judge from the Proto-Sinaitic inscriptions, vertical writing dominated in the earliest period (cf. Egyptian and cuneiform), and right-to-left, whether in vertical columns or horizontal. However this may be, the direction of writing determined (normally) the direction in which the signs faced. This practice is too well known in parallel and derived systems of writing to require discussion. It occasions no great problems, once the standard forms are known, and exercises only a moderate influence on the evolution of script. The dominant use of vertical columns of writing in the earliest period, and the gradual shift to a dominantly horizontal script during Late Bronze profoundly influenced the evolution of forms, notably the stance of letters, and must be properly understood:

(1) In shifting from vertical to horizontal writing, there was a persistent tendency to shift the consonantal symbols (or syllabic symbols if one prefers) ninety degrees, one-quarter turn. The psychology which prompts this rotation is easily understood,[10] and is illustrated in the Proto-Sinaitic texts, No. 346, for example, where the direction changes from vertical to horizontal in a single line. In changing from vertical to left-to-right horizontal writing, symbols tended to be shifted ninety degrees counter-clockwise.[11] In the shift to right-to-left horizontal script, the rotation was ninety degrees clockwise.

(2) The increasing dominance of horizontal writing caused the "rotated" forms to become standard. Before the eleventh century forms written "sideways" were used in vertical writing, indicating that vertical writing and its effective force on the stance of the script were dying out. During the *floruit* of vertical writing, however, the tendency to shift remained in effect. Virtually all of the letters in thirteenth-century horizontally written inscriptions have shifted from "normal" fifteenth-century forms by a one-quarter turn. Moreover, the tendency continues to operate, and by the time we arrive at twelfth-eleventh century forms, several letters have shifted a second time by ninety degrees. This rotation is slow, however, and generally we can date it (in terms of centuries). The letters which shifted stance twice were highly conventionalized symbols (notably *ḥeth* and *shin*). It is also possible that

[9] Bibliography on the Proto-Canaanite corpus can be found in the works cited in n. 4. To these should now be added, Goetze, "A Seal with an Early Alphabetic Inscription," BULLETIN 129 (Feb., 1953), pp. 8 ff.

[10] Cf. Yeivin, "The Palestino-Sinaitic Inscriptions," p. 181, n. 4.

[11] This shift prevailed in the early evolution of cuneiform.

some, *kaph* and *resh*, for example, whose pictographic significance was most obvious, did not shift (permanently) at all.

(3) The increasing dominance of right-to-left writing caused the rotation of letter stances to produce, ultimately, a general shift clockwise. However, a major qualification must be made. With the simplification and conventionalization of the script, individual inscriptions quite frequently confuse "original," or later "standardized" right-to-left and left-to-right letter stances. For the most part these confusions made no impression on the general course of the evolution of the script. In at least two instances (*shin* and *nun*), and probably in one or two others, right-to-left and left-to-right forms of signs were generally confused at one period in their evolution, and their stances reversed (see Fig. 1).

By the eleventh century horizontal writing from right to left prevailed. With it came an end to the violent shifts of stance characteristic of Proto-Canaanite.

These observations are helpful, not only in following the evolution of the script and in dating it in broad terms, but also in decipherment.

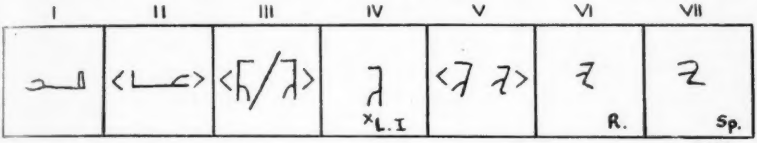


FIG. 2. The evolution of the letter *yodh*, 15th-11th centuries, B. C.: Col. I, Egyptian hieroglyph ("hand," "hand-and-forearm"); Col. II, hypothetical Proto-Sinaitic form (early 15th century B. C.); Col. III, transitional forms, after rotation; Col. IV, 13th century (L. I. = Lachish Ewer); Col. V, development of "semi-cursive" *yodh* (*cir.* 12th century); Col. VI, 11th century (R. = Ruweiseh Arrowhead); Col. VII, earliest Byblian form (late 11th century B. C.).

giving a clue for determining the direction of writing, and for predicting the forms of rare or unknown letters in a given period. The Lachish inscriptions of the thirteenth century, especially the so-called Lachish Ewer, the longest and most legible Proto-Cananite inscription in the "intermediate" period between Proto-Sinaitic and the el-Khaḍr Javelin-heads, will illustrate.

The Lachish Bowl, so far as it is legible, reads *btltt*, the preposition *b*, and a form of the numeral "three." The reading is generally agreed upon. Since the symbols fit perfectly into the evolution described above, the reading of the consonants may be regarded as certain. The letter *t* (*tinn* > *šin*, "composite bow" [Albright]) has shifted one-quarter turn from the standard fifteenth-century position, but is still one-quarter turn from the twelfth century and later Phoenician stance. *Lamedh* is ninety degrees from its fifteenth-century form; and *beth* is ninety degrees, counter-clockwise, from its future, eleventh-century stance, as expected.

The Lachish Ewer reads from left to right. This is confirmed by the stance of *t* (one-quarter turn counter-clockwise from its twelfth-century form, and reversed in stance from the contemporary, right-to-left form of *t*), as well as the stance of two other letters, as we shall see. *Lamedh*

and *nun* are in their expected stance, but because of the fluid fashion in which their r.-l. and l.-r. forms are interchanged in immediately adjacent periods, are of no weight (see Fig. 1).[12] *M*, *š*, *'*, and *l* have shifted ninety degrees from Proto-Sinaitic positions; *n* is yet to shift; *taw*, of course, is symmetrical.

The certain readings are as follows:

$$m\ t\ n\ .\ \underline{t}\ (\text{or } \acute{s})^{13} - {}^{\lceil}{}^{\rceil}[--]t^{14} - {}'l\ t$$

The three vertically-placed dots are a division marker. They cannot be a number; neither the preceeding or following word is plural. Furthermore, the letter combination *t̲* – must be a complete word. *Waw*, the only possible reading previously suggested, is a *pis aller*.[15] The scribe would scarcely have written *waw* as a post-positive particle! The figure of the deer on the jar was in plain evidence, and he would have joined *waw* to the following word, according to normal practice. Further, no suggestion has been made concerning the evolution of *waw* (or any other letter suggested) from a reconstructed pictograph (or hieroglyph) to this form, and from this form to the eleventh century form. The writer considers the identification as impossible. For such a form to develop into the eleventh-tenth century form, one would have to turn it upside down (two quarter turns in two centuries, which has no parallel), and knock off the top arm, a most distinctive part of the sign, as well as "bow" its legs!

The solution is to read *yodh*. Then our inscription reads:

$$m\ t\ n\ .\ \underline{t}/\acute{s}\ y\ {}^{\lceil}l^{\rceil}{}^{16}\ [r\ b]^{17}\ t\ y\ {}'l\ t$$

---

[12] *Aleph*, on the other hand, is reversed from what is expected, being in r.-l. position. We must expect a certain mixture of stances in individual inscriptions throughout the period when left-to-right writing remained in use. Cf. el-Khaḍr I.

[13] As shown by Albright, the old phonemes *t̲* and *ś* had fallen together in Late Bronze Age Canaanite, as indicated by the transcriptional data (see "The Early Alphabetic Inscriptions, *etc.*, p. 15, n. 41). Later, of course, *š*, *ś*, and *t̲* fell together in Phoenician as *š* (before the tenth century).

[14] *Taw* is certain despite Grimme, Obermann, and others. Close examination of the jar shows that the paint on the right arm has run—no more, no less. It is thus a standard *taw* form.

[15] *Kaph*, suggested by Maisler and Yeivin, is no longer a possibility. Thanks to new evidence (see below), we have examples of it from the fifteenth, thirteenth, and eleventh centuries. The Lachish symbol can in no way be squeezed into the line of evolution.

[16] The trace is perfect for *lamedh*. The form would be slightly more curved, perhaps, than the one in the text, closer to the Beth-shemesh form.

[17] The restoration of *[r b]* imposes itself to complete *'l' – – t y 'l t*. The space requires two letters (and no more!) in addition to the *lamedh*. A title of 'Elat is needed. We know that *'ilt* = *'aṯirat* (Asherah) is regularly called *rbt*, "Lady" in the Ugaritic texts (see, e. g., 51:III:28/29; 49:I:16/17, 19, 25; *etc.*). The identification of *'aṯirat* (Asherah), consort of El, with *'ilat* (goddess, *par excellence*) is certain (see, for example, 49:II:12). The word is probably to be vocalized *rabbōtay*, the so-called plural of majesty, as in Phoenician; Cf. *rbty* (*rabbōtay*) in Yeḥawmilk 3, 7 (of *Ba'lat Gebal*, Asherah); *'dtw* (*'ad(d)ōtêw* [so!]; Ugar. *'ad*; *'adt*) in the Eliba'l Inscription. Cf. Ugar. *'adty* (89:1, *etc.*); Proto-Sinaitic *mṯt*[*y*] (Albright); Ugaritic *mᵗt*. It would be quite possible still in this period to read the singular, however: *la-rabbatiya*, precisely as it would be vocalized in Ugaritic, approximately a century earlier.

"Mattan.[18] A tribute[19] to my Lady 'Elat."

The offering or tribute would be the decorated Ewer itself (and its contents), presented to the temple of 'Elat by someone, perhaps the artisan himself, named Mattan.

The inscription could also be read, "A gift: a lamb[20] for my Lady 'Elat." A parallel to this reading, and in part to the preferred one, is found in Ugaritic Text No. 1, 2:

mtn tm nkbd. 'lp. š. l'il

"A perfect and noble gift: an ox (and) a lamb for El."

The text is a list of gifts given to the temple, just as our inscription records a gift given to the temple in Lachish, in which, as a matter of fact, part of the Ewer was found.

To return to the palaeography of the inscription, the *yodh*, its form and stance, agree very well with our expectations. The sign is ultimately identical, it seems, with the Egyptian hieroglyph "hand," "hand-and-forearm" (see Fig. 2).[21] It has shifted one-quarter turn. Reversed, that is, in right-to-left stance, it is the immediate ancestor of the *yodh* of Ruweiseh.[22] It is also probable that the archaic *yodh* appears in the seal from the fourteenth century B. C. published by Goetze.[23] The line farthest from the figures reads: *' r q y*, "the Arkite."[24] The letters all fit into the stances expected in this period: *'ayn* is turned ninety degrees; also *qoph* and *yodh*. *Resh*, as expected, is not shifted. The

[18] A good Canaanite personal name, attested in our period.

[19] Reading *ṯy*, Heb. *šay*, "offering, tribute." The derivation, *ṯa'yu* > (by partial assimilation) *ṯayy* > *šay(y)*, has been established by Ginsberg and Albright. The word appears in Proto-Sinaitic and Ugaritic texts in just such contexts as ours. See most recently, Albright, "The Early Alphabetic Inscriptions, *etc.*," p. 15, n. 41.

[20] Reading *śay*, or *śayu*, or the like. Cp. Heb. *śê*; Ugar. *š*. Some dialects in South Canaan did not contract diphthongs until after the period of our inscription. Hebrew itself did not (as illustrated in the later dialect of Lachish!). Compare the by-forms *śadê/śaday*; and note that the suffix-forms of *śê* in Hebrew preserve *yodh*. However, it must be admitted that the phonetic derivation is not certain.

[21] Leibovitch has anticipated my identification of the Lachish symbol with the Egypt. '-sign. However, he carries his suggestion no further, neither connecting it with Canaanite *yodh*, nor, indeed, attempting to decipher the Lachish Ewer as Canaanite, being bound up in his Meroitic theory. See "Recent Discoveries and Developments in Protosinaïtic," *Annales du Service des Antiquités de l'Égypt, XL* (1940), pp. 101-122; Pls. XIV-XIX; esp. pp. 105, 6; 117. (The reference was called to my attention by Abbé J. T. Milik).

[22] The lower stroke on the *yodh* is cursive in origin, an added flourish which becomes a part of the letter, exactly like the flourish developed on the lower part of the *beth* of the *'Abda'* Sherd, and the *Shipiṭ-Ba'l* Inscription. Cf. Albright, "The Phoenician Inscriptions, *etc.*," p. 154, n. 14. It is interesting to compare the *beth* and the *yodh* side by side on the *'Abda'* Sherd; the cursive tails are identical strokes. Examples of cursive flourishes becoming part of letters in the later evolution of the script are legion.

[23] *Op. cit.* (n. 9), Fig. 1.

[24] Professor Albright and the writer arrived at this reading independently. The writer compared Lihyanite *'rqn*, and supposed that the -y was the familiar hypocoristic ending. Professor Albright's interpretation is more satisfactory: he takes the -y as a gentilic (*nisbeh*) ending and reads, "the Arkite," an inhabitant of Canaanite-Phoenician *'Irqatu*. In this case the inscription must be taken as *boustrophedon*, the line closest to the figures giving the personal name of the owner of the seal.

yodh is very close to the Lachish form, though somewhat rounded (c. South Arabic), and is thoroughly suitable in a fourteenth century B. C. context.

If the general approach of the writer is correct, there are a number of implications for the epigraphy of the period. It offers further assistance in the dating of the borrowing of the alphabet by the (South) Arabians. We know that some of the earliest of the South Arabic texts read vertically, and from left to right, as well as right to left (leading to the early development of *boustrophedon* writing).[25] Clearly, therefore, we must go back into the Late Bronze phase of Proto-Canaanite writing before these traditions died. Further, the Proto-Arabic alphabet exhibits an alphabet of more than twenty-two phonemes. Some of the extra symbols are probably developed secondarily from kindred phonemic symbols (*ẓ* from *ṣ* in South Arabic; *ś* from *š*);[26] on the other hand, two distinct *s* symbols survive as in Proto-Sinaitic (Albright), and the *ṣade*, in its most ancient, inverted form,[26a] is virtually identical with the flower symbol in Proto-Sinaitic. Since the *ṣ* (*ṣade*) of the javelin-heads (whatever its origin) can scarcely have evolved from the "blossom" (*ṣîṣ*), we must find its origin in a missing *ẓ* symbol which, after the spirant emphatics fell together, ousted alternatives.[27] We must go back, therefore, before the time of the simplification of the Phoenician alphabet, not later than the early eleventh century.

It is extremely precarious to date the branching off of old South Arabic by the stance of letters in the later script, since we do not know how long vertical writing persisted after the borrowing of the script. It may assist, however, in determining a *terminus ad quem*. Many forms of the letters preserve (or have developed independently) the stance of Proto-Canaanite symbols in the fourteenth-thirteenth centuries (*ḥ*, *m*, *n*, *š*); several (*'*, *b*, and *h*) preserve extremely archaic forms as well as stances, difficult to explain if the Proto-Arabic script diverged after the first half of the thirteenth century. We may conclude that the Proto-Arabic script diverged in the Late Bronze Age, probably in the fourteenth or early thirteenth century B. C.

The palaeographic position taken here, both with regard to the archaic javelin-heads and the thirteenth-century Lachish inscriptions, casts doubt on the attribution of the so-called Enigmatic Byblian Inscription to the corpus of Proto-Canaanite alphabetic inscriptions from the thirteenth-twelfth centuries B. C.[28] Neither in the form of its signs, nor in

[25] For the present, see G. Van Beek, "Rediscovering the Ancient Civilization of Arabia," *Bibl. Archaeol.*, XV (1952), pp. 17, 18; and W. F. Albright, "The Chaldaean Inscriptions in Proto-Arabic Script," BULLETIN 128 (1952), p. 45.

[26] *ṯ* is another example of an inner Arabic development; this seems to indicate that the Proto-Arabic script was borrowed after Proto-Canaanite *ṯ* fell together with *ś* (so!). However, this had already taken place by the fifteenth century B. C.

[26a] See Glueck, BULLETIN 71 (1938), p. 15, Fig. 5; Albright, 128 (1952), p. 18.

[27] The "blossom" in Proto-Sinaitic can be read *ṣ/ḏ* (fallen together as in Ugaritic), conserving the value *ẓ* (distinct in Ugaritic) as the ancestor of *ṣade*. Text 352 may be read . . . *bnṣr* . . . , as well as . . . *bnẓr* . . . , "with (for) protection" (Albright).

[28] The latest treatment is that of Professor Albright, "The So-Called Enigmatic Inscription from Byblus," BULLETIN 116 (1949), pp. 12-14.

their stance does the inscription fit into the evolution of the Proto-Canaanite script of this period as described above. Three examples will illustrate our point: (1) The rhomboidal symbol, identified by Grimme as *beth*, should have to develop and disappear in something like a century, were the Enigmatic Byblian Inscription to be fitted into the development of the alphabet between the Lachish script and the forms of el-Khaḍr or later. The Lachish *beth*, given a quarter-turn is precisely the el-Khaḍr form. (2) The inverted—"V" type *gimel* (with which two signs in Enigmatic were identified by Grimme) seems first to

FIG. 3. An inscribed jar handle from the Late Bronze Age (Tell el-'Ajjūl). Photograph, Palestine Archaeological Museum.

evolve in the mid-tenth century (Yeḥimilk, and later). The *gimel* of Beth-shemesh, the Bronze Spatula of Byblus, and Aḥiram is "open" to the left, with a short left arm and a near-vertical right leg. In the Beth-shemesh form, the right leg actually slants from right to left (from top to bottom); this holds true in the Spatula also, though the shift to the vertical stance has begun. (3) The sign in l. 3 (fifth from right), identified by Albright and Freedman with *kaph*, is difficult. We know that the *kaph* of Proto-Sinaitic is a four or three-fingered hand, in the same stance as those of the eleventh-tenth centuries. Intermediate be-

tween the two are a twelfth-century (?) *kaph* from Tell Beit Mirsim,[29] and a Late Bronze II form from Tell el-'Ajjûl (Fig. 3).[30] Both fit into a simple line of evolution. The "enigmatic *kaph*" on the contrary, is upside down; it has developed a stroke above its three "fingers," which hooks to the left; we have no parallel for such a radical development and disappearance in a short time.[31]

In fact it may be said that there is no symbol in the Enigmatic Inscription, with the exception of the *resh*-like form in line 2, and the *'ayn*-like signs in l. 1 and 3—both highly conventional symbols—which is wholly unobjectionable from a typological point of view. Whether the way to a solution of the enigmas of the inscription lies in the direction of Dunand's attempt to align it with the pseudo-hieroglyphic corpus of Byblus, or in yet unexplored directions, is difficult to say with certainty. We are inclined, however, to sever the suggested ties between it and the thirteenth-twelfth century corpus of alphabetic inscriptions from Palestine, and *a fortiori* to deny any direct connections between the pseudo-hieroglyphic materials and the alphabet. Similarities between the signs exist, of course, as is to be expected in two systems ultimately inspired by Egyptian writing. The greatest similarities appear, however, only after the Proto-Canaanite alphabet is conventionalized.

In fine, the views associated with such names as Gardiner, Cowley, Sethe, Butin, and Albright, that the alphabet had its origins in an acrophonically devised pictographic script under direct or indirect Egyptian influence, somewhere in Syria-Palestine must be regarded as confirmed throughout.[32]

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[29] Cf. Albright, *The Excavation of TBM* (*AASOR* XXI-XXII), 17, Pl. 60:1.

[30] The jar handle was badly published by Petrie, *Ancient Gaza II* (London, 1932), P. XL:30. The two letters were incised deeply before baking. Their stance is certain, of course, determined by the shape of the handle and vessel. The writer examined the handle and the tomb group (1503) with which the handle was found, with the help of Père de Vaux. The handle is clearly LB (de Vaux), and the pottery associated in the tomb of the same date.

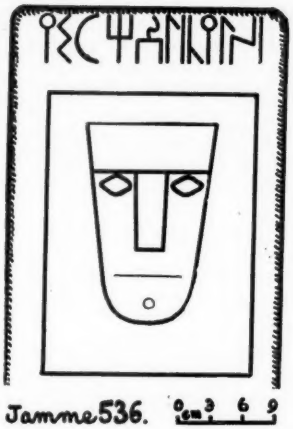
[31] In examining the original of the "Enigmatic Inscription" in the Beirut Museum, the writer confirmed his suspicion that the hook is an integral part of the sign. (The first legible sign from the right in line one may be the same symbol, despite Dunand's hand-copy). It may be remarked also that past interpretations have not given sufficient attention to the word-divider (l. 2, between the second and third symbol). The vertical stroke is precisely and profoundly engraved. It is quite as deep as any of the surrounding strokes.

[32] The following signs of the alphabet can be traced through their evolution from pictograph to Phoenician letter, in deciphered contexts: *'alp*, ox-head; *bêt*, house; *hei* (so!), fence; *yôd*, hand; *kaph*, palm; *lamd*, ox-goad; *mêm*, water; *nûn* or *naḥaš*, serpent; *'ayn*, eye; *rêš*, head; *šin* (<*ṯinn*), composite bow; *taw*, mark. Several other identifications of signs lost in Phoenician can be made plausibly: *ḫarm* (Eth.), netting; *ṣiṣ* (?), blossom (opposed to *ṣadê*<*ẓadê*). Others, whose names remain obscure in meaning, but which can be traced from pictograph to conventional sign: *ḥ*, *ḏ* (>*zayn*), and *q*.

AN ARCHAIC DEXTROGRADE SABAEAN INSCRIPTION FROM MÂREB

A. JAMME, W. F.

A stela bearing a small dextrograde (left to right) inscription was discovered during our work at Mâreb.[1] This object is badly damaged and was found reused in the eastern wall of the house of a man called et-Tibâs.[2] The stela (see the drawing), the number of which is MaV 19[3] = Jamme 536,[4] is a long parallelopiped (72 cm. × 25) of a very well known type, the thickness of which is still unknown (probably between 20 and 30 cm.).



On the face, whose edges are damaged 76 mm. below the upper edge and 23 mm. from the right edge, is a depression (25 cm. 3 × 19.2 × 2.2) in which a human head is shown in relief; unfortunately, its details are almost completely effaced.

The inscription (20 cm. × 4.1), which is the identity card of the man whose stylized head is drawn in the depression, is engraved on the upper rim of the face, 7 mm. from the upper corner:

yšrḥ'l/ (ġ) yln/ Yašraḥ'il [of the family of] (Ġ)aylân.

The first proper name is very well known both as personal name (see, e. g., RES 3970/2), and also as a family name (see, e. g., Jamme 379). The second proper name is a family name. At first sight, it could be read as *ẓyln*; but, the circle, which is characteristic of *ẓ*, is missing, and

[1] See my paper "Aperçu général des inscriptions copiées à Mâreb (Yémen)," in *Académie Royale de Belgique: Bulletin de la Classe des Lettres et des Sciences Morales et Politiques*, 5e série, t. XXXVIII (1952), p. 294 and footnote 3.

[2] Fakhry 59, 60 and 61 also belong to this house.

[3] "MaV" is the abbreviation of "Mâreb Village."

[4] For Jamme 1-535, see footnote 7 of my paper "Inscriptions de al-'Amâyid de Mâreb" (to be published).

in the boustrophedon texts this letter has in its lower part two small strokes which form, with the end of the vertical stroke, a square without a bottom line. On the base of these facts, I interpreted this name as "Ẓ(?)aylân" in my above-mentioned paper. My notebook says that for about 20 minutes I tried to see something on top of the vertical stroke—but in vain; I only saw two separate parallel strokes, the first of which is the dividing sign. The edge of the stone is damaged, it is true, but uniformly, and all the other characters are complete. I have thus no reason to admit that this letter is incomplete. I propose to read *G*; *ġyln* is a very well known proper name. The letter has only one vertical stroke; consequently, if the small lateral stroke were attached to the top of the letter, this sign would have exactly the same form as *L*. To avoid this confusion, the second stroke was put on the bottom.

The tracing of this text belongs to the boustrophedon period; the angles of *š*, *k* and *'* are square, and the upper part of *ḥ* and the lower part of *'* are squares. However, the upper part of *'* is as in the graffiti and the central stroke of *n* is already bending to the right. This inscription can scarcely be later than the eighth century B. C. and may be earlier, in view of the fact that the dextrograde direction of the script appears frequently in the earliest graffiti which I copied in Wâdī Beiḥân (Qatabân).

SOME OBSERVATIONS ON THE NEW MATERIAL FOR THE HISTORY OF THE ALPHABET

There can be no doubt that Milik and Cross have made a first-class contribution to knowledge. I am fully in accord with them about the date and interpretation of the arrowhead inscriptions, and after ironing out a few minor points in a protracted correspondence, extremely few points of disagreement are left. Their date in the twelfth century, with *terminus ad quem* in the early eleventh, appears unassailable to me. So also does Milik's interpretation of the name *'Abd(u)-Labi't(i)* as "Servant of the Lioness (Asherah)." In addition to his references I should like to cite my discussions of the word for "lion(ess)" in BULLETIN, No. 89, p. 16, n. 51a, and *Jour. Bib. Lit.*, LXIII (1944), p. 218, n. 75. The word merits further discussion. The second element in the town-name *Bêt-LB'T* in Simeon was no doubt originally singular, referring to the same deity (for which cf. perhaps also BULLETIN, No. 89, p. 15, n. 49). Incidentally, a photograph of a statuette of the New Kingdom recently sent me by Mr. I. E. S. Edwards of the British Museum (who expects to publish it) proves occasional Egyptian identification of Qudshu (so expressly labeled) with Anath and Astarte (whose names are written on either side of the naked Qudshu standing on a lion). This also clinches the already certain identification of Qudshu with Asherah.

The only point of any importance on which I am inclined to disagree is with respect to the interpretation of the so-called Byblian enigmatic inscription (see BULLETIN, No. 116, pp. 12-14). Cross may well be correct, but I still believe that this text differs too widely from the Byblian syllabic texts in both form and probable number of characters to be included among them. I now prefer to read *S* instead of *K* in the last line (letter 5); the meaning would be little changed. A solution must await more data.*

W. F. ALBRIGHT

* On the number and order of the 27 alphabetic characters of Early Canaanite see my remarks in BULLETIN, Nos. 118, pp. 12 ff., and 119, pp. 23 f. Whether the astonishing resemblance between the *Ẓ* of the arrowheads and the possible *Ẓ* of the exceedingly early Sabaean stele published by Dr. Jamme in this issue is accidental or significant must also be left for the future to decide.

ON MŠHTY IN THE QUMRAN SCROLLS

Professor Wm. H. Brownlee, in a recent number of the BULLETIN (No. 132, pp. 8 ff.), maintains that the reading *mšḥty* in the Qumrân Scrolls of Is. 52.14 instead of *mšḥt* of MT proves that the word meant, to some at any rate, "I anointed," not "marred" as generally accepted. But on what basis? What sense is there in a phrase like "I anointed his appearance"? Surely one anoints a person, not his appearance. On the other hand, "to mar the appearance of a person" makes good sense. Brownlee makes a lot of the grammatical construction *mašaḥ min*, but as a matter of fact there is no such construction in Hebrew: *mašaḥ* always takes the direct object, and so it does in Ps. 45.8, which he adduces as proof, the *mem* of *mēḥăbērêkā* at the end of the verse being nothing else than the comparative and superlative *mem* (see GKC., *Grammar*, § 133), which is an independent phenomenon and has nothing to do with *mašaḥ* itself. If the latter verb governs anything it might be the *beth* of material. Moreover, Brownlee claims that the reading "anoint" makes *yazzeh* "sprinkle" of the subsequent verse intelligible. But why does *yazzeh* have to mean "sprinkle"? The BDB lexicon, s. v. *nazah* II, derives it from Arabic *nazā* meaning "to leap, to spring" and renders it properly "to startle" (so also the JPSV and the RSV).

Consequently, the difficult masoretic *mšḥt* prevails, and undoubtedly is derived from *šḥt* "to mar." Of course, the form *mišḥat* is incongruous, but either we read it *mošḥat* (Part. Hophal), or else explain it as *nišḥat* (Perf. or Part. Niphal), the *mem* due to the meeting of two *nuns*.

The real explanation of the reading *mšḥty* instead of *mšḥt* in the Qumrân Scroll is the fondness of the copyist for vowel letters, in which he luxuriates. Why does he write *mw'dh* instead of *m'wd* in v. 13? or why does he write *pyhmh* instead of *pyhm* in v. 15? and so on. This affectation is plainly common to all Qumrân manuscripts. Perhaps, too, it is due to the archaic use of *yod* at the end of a part., as, e.g., *'ōhaḇtī* in Hos. 10.11.

JOSEPH REIDER

CERTAINLY MAŠAḤTI!

As regards Prof. Reider's criticism of my article relating to the Servant of the Lord,[1] one should emphasize at the outset that the issue between us concerns Essene interpretation of Is. 52: 14-15, not the original sense of the passage, and that it was D. Barthélemy who first advanced the arguments favoring the originality of the Messianic reading. I have accepted two of his arguments, but only as regards the interpretation of 1QIs[a].

As for *mašaḥ . . . min*, my understanding of the construction is precisely the same as that of my critic![2] Not only in Ps. 45: 8, but also in 1QIs[a] 52: 14 (Pl. xliv, line 2) the verb is followed by the object before the particle of comparison; and not only does the former verse present us with the same vocabulary employed in exactly the same way, but it presents us also with a parallel passage wherein there is a superior anointing of a royal figure—a figure interpreted anciently (though contrary to the original sense) as the Messiah![3] It is not unreasonable therefore that Ps. 45: 8 should serve as a clue both as to the origin and the proper interpretation of *MŠḤTY* . . . . . M . . . in 1QIs[a]. As regards *yazzeh* in Is. 52: 15, it is not a question as to whether this word *must* mean "sprinkle," though this is the constant

[1] BULLETIN, No. 132. Correct "Is. 43: 12" (p. 13, l. 9) to "Is. 53: 12." Notes 23 and 24 should be combined under note 24 on p. 15, whereas note 22a is equally applicable to both 22a and 23 (on p. 14).

[2] My critic's misunderstanding seems to rest upon the printing of *mašaḥ min* without any intervening dots. In this I simply followed Barthélemy, whose argument I was summarizing. Cf. *RB*, LVII, 1950, p. 546.

[3] The psalm was so interpreted in the Targum and in Hebrews 1: 8.

meaning elsewhere in the Old Testament, but whether the word was so interpreted by the Essenes. The semantic nearness of "anoint" and "sprinkle" would favor this interpretation.

The crux of the issue is whether *MŠḤTY* is to be vocalized *mašaḥtī*. It is not characteristic practice in any of the Scrolls to invent syllables without precedent; nor, moving to Prof. Reider's next point, was it their practice to add a *yodh* in this alleged manner to participles. A mere luxuriating in vowel letters would readily have produced *MYŠḤT* (with *yodh* for *ḥireq*), or *MWŠḤT* (with *waw* for *qameṣ ḥatuph*), if the sense "marring," or "marred," had been desired. Thus the easiest and most natural interpretation of the *yodh* here is to recognize that it gives us the form *mašaḥtī* ("I anointed")!

WM. H. BROWNLEE

Professor Brownlee does not disprove my criticism. I realized that he ascribed *mšḥty* "I anointed" in the Qumran Scrolls to the Essene sect, championing the view of D. Barthélemy. But my standpoint is that such an interpretation is impossible on the part of any one who has a basic understanding of biblical Hebrew, and after all even an Essene scribe knew biblical Hebrew very well and would under no circumstances distort it to the extent of writing *mšḥty m'yš mr'hw*. Professor Brownlee must have been sympathetic to the Messianic interpretation, since he still champions it and even seeks support for it in the Targum to Ps. 45.8, where I fail to find it: the Targum here is a literal translation of the Hebrew, unless one misreads *mšiḥā* for *mšḥa*.

It is true that I did not adduce another example in the Isaiah Scroll of a participle with an additional *yod* at the end, but I did quote such an example in the MT, namely *'ōhaḇtī* in Hos. 10.11.

J. REIDER

Where did Professor Reider get the Hebrew words he cites, if the scribe could not have written them? Moreover, what is incongruous as an original reading may serve, nevertheless, a sectarian purpose. So it is not a question of my sympathies, but those of the scribe.[1] To make one's neighbor drunk in order to look upon his "festivals," rather than his "pudenda," is not an intelligible reading of Hab. 2:15; but the author of 1QpHab actually wrote this (*MW'DYHM* for *M'WRYHM*) and interpreted accordingly! Again, what is *'ôhabhtī* of Hos. 10:11, which is admittedly irrelevant for the orthography of the scrolls, compared with the linguistic similarity of Ps. 45:8 (EV 45:7), whose literal significance ("anoint") must be understood Messianically after the Targum's reference to "King Messiah" in verse 3?[2]

WM. H. BROWNLEE

The debate on the meaning which the Essenes may have attributed to *MŠḤTY* is herewith closed, and no further contributions on the subject will be accepted.

THE EDITOR

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[a] A few longer forms of the pronominal suffix have survived in the MT, e.g., Ex. 30:4; 36:1; Ez. 13:18; Jer. 14:16; Ps. 103:3. The fact that such longer forms abound in 1QIs[a] is a mark of antiquity, as well as scribal preference. [See Paul Kahle, *Die hebräischen Handschriften aus der Höhle* (Stuttgart, 1951), pp. 41 f., 74 ff., with references to the works of Milik and Yalon; also D. M. Beegle, BULLETIN, No. 123, pp. 26-30; No. 129, pp. 11-14; M. Burrows, BULLETIN, No. 124, pp. 18-20.]

[1] For five years I refused a Messianic significance to *MŠḤTY*. Cf. BULLETIN, No. 132, pp. 10 f.

[2] English readers may see the Cambridge Bible, *Psalms, Books II, & III*, p. 244.

ANNUAL FINANCIAL REPORT OF THE AMERICAN SCHOOLS OF ORIENTAL RESEARCH

FOR THE YEAR ENDING JUNE 30, 1953

INCOME

Income from Investments		
General Endowment	$15,451.33	
Henry Thatcher Fowler Memorial	23.50	
Helen M. Moulton Memorial	235.03	
Edward T. Newell Fund	235.03	
Edward Robinson Fund	880.05	
Ann E. Stodder Fund	164.52	
Jastrow Memorial	35.00	
John P. Peters Memorial	12.50	
Schofield Memorial	12.50	
Felix M. Warburg Reserve	270.00	
J. B. Nies Reserve	412.50	
Reserve for Research	167.84	$ 17,899.80
Income from J. B. Nies Estate		
For Baghdad School	4,431.57	
For General Publications	141.98	$ 4,573.55
Contributions, etc.		
Corporation Dues	8,125.00	
Memberships	485.00	
Associate Membership	2,358.45	
Patrons' Contributions	200.00	
Royalties	22.22	$ 11,190.67
Special Contributions		
Toward Cost of News Letters	15.00	
Toward Cost of Bulletin	435.00	
Toward Excavation Costs	150.00	
Toward Acquisition of Scrolls and Manuscripts	5,000.00	
Toward Expedition at Nimrud Dagh $5,000.00		
For General Use	28.18	$ 5,628.18
Income from Sale of Publications		
The Annual	768.84	
Biblical Archaeologist	2,895.54	
Bulletin and Supplementary Studies	1,808.67	
Journal of Cuneiform Studies	796.15	
Other Publications	1,130.94	
Dead Sea Scrolls	1,147.43	
Trade Publications	3,259.56	$ 11,807.13
Income from Rental of Slides		38.90
Income Received in Jerusalem		
School and Hostel Income	9,839.08	
Archaeological Account Income	194.45	$ 10,033.53
Appropriations from Reserves		
Reserve for Research		3,500.00
Refunds		
Fellowship in Israel		2,200.00
Total Income		$ 66,871.76

EXPENDITURES

Jerusalem School			
Director's Salary		$ 5,500.00	
Director's Travel Allowance		1,100.00	
Equipment, Supplies, etc,		499.90	
Insurance		614.00	
Fellowships—Board & Lodging		1,910.00	
Fellowships—Travel Allowance		1,910.00	
Operation of School (Paid in Jerusalem)		11,693.95	$ 23,227.85
Archaeological Account			
Appropriation Toward Excavation Project		2,000.00	
Expenditures in Jerusalem		2,994.32	$ 4,994.32
Baghdad School			
Annual Professor's Travel Allowance			2,344.07
Publication Costs			
The Annual		2,171.26	
Bulletin and Supplementary Studies		3,223.48	
Biblical Archaeologist		2,169.93	
Journal of Cuneiform Studies		2,776.18	
Trade Publications		3,041.89	
Other Publications		2,171.19	$ 15,553.93
Dead Sea Manuscripts Purchased			5,000.00
Administration			
Salary (Business Manager)		3,030.00	
Office Help		2,248.36	
Supplies		1,324.55	
Telephone and Telegraph		96.40	
Postage and Express		1,144.99	
Bank Charges (New Haven)		56.56	
Cost to Acquire Travelers Checks		55.80	
Insurance (New Haven)		21.01	
Audit Expense (New Haven)		25.00	
Moving Costs		617.79	
Travel Expense (T. L. Knight)		7.37	
Miscellaneous		42.54	
Trustees' Travel Expense		584.61	
President's Travel Expense		549.20	
President's Secretarial Expense, etc.		69.00	
Audit Fee—Philadelphia		75.00	
Assistant Treasurer's Fee		2,100.00	$ 12,048.18
Employer's Share of Social Security Cost			101.83
Other Expenditures			
Advanced to Nimrud Dagh Project	$2,940.00		
Cost to Acquire a Letter of Credit	14.70		
	$2,954.70		
Balance Held for Nimrud Dagh	$2,045.30		
Total Expenditures			$ 63,270.18

Financial Statement

ASSETS		
Cash		
For Current Use—Philadelphia	$ 4,039.52	
—New Haven and Canada	2,107.68	
—Jerusalem	7,138.83	
Awaiting Investment	254.48	
Held in Reserve	1,668.55	$ 15,209.06
Investment (Market Value 6/30/53—$479,523.21)		450,159.11
Furnishings and Equipment		4,601.46
Buildings		69,432.00
Real Estate in Jerusalem		27,181.93
Advance Payments on 1953-1954 Budget		6,200.00
		$572,783.56
LIABILITIES		
Advance Receipts Corporation Dues 1953-1954		$ 2,500.00
Balance of Credit for Joint Expedition at Nimrud Dagh		2,045.30
Balance of Credit for Unrolling Scrolls		750.00
Principal of Endowment Funds		393,051.06
Principal of J. B. Nies Building Fund		52,666.63
Reserve Funds		
J. B. Nies (For Baghdad School)	$33,824.52	
Reserve for Research	13,002.81	
Felix M. Warburg	12,203.75	$ 59,031.08
General Corporate Account		62,739.49
		$572,783.56

"We have examined the Financial Statement of Assets and Liabilities at June 30, 1953, and the related Statements of Income and Expenses for the fiscal year ended June 30, 1953, of the American Schools of Oriental Research. At New Haven, Connecticut and Jerusalem, independent auditors verified the cash on hand and annual transactions which were accepted without verification. Subject to the correctness of their statements, in our opinion the attached financial statements properly reflect the financial condition and the result of operation for the period noted."

Wheeler, Crosbie, Seiler & Company
Certified Public Accountants
121 South Broad Street
Philadelphia 7, Pennsylvania

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Founded 1900, incorporated under the laws of the District of Columbia, 1921.

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